TATA STEEL

27MnB5

Ultra high strength after heat treatment for longer lifespan

Steel grade 27MnB5 is an uncoated, heat treatable steel designed for abrasive circumstances. The chemistry of this product has been carefully selected to meet the necessary wear performance after quenching and tempering. The excellent surface combined with the consistent product quality makes this material easy to process 24/7. This grade has been tested throughout to ensure an excellent fatigue performance.

Mechanical properties

	Substrate	Test direction	Yield strength R_p (N/mm²)	Tensile strength R_m (N/mm²)	Elongation[1] A_{50} (%)
27MnB5 Typical	Hot-rolled	L	400	600	25

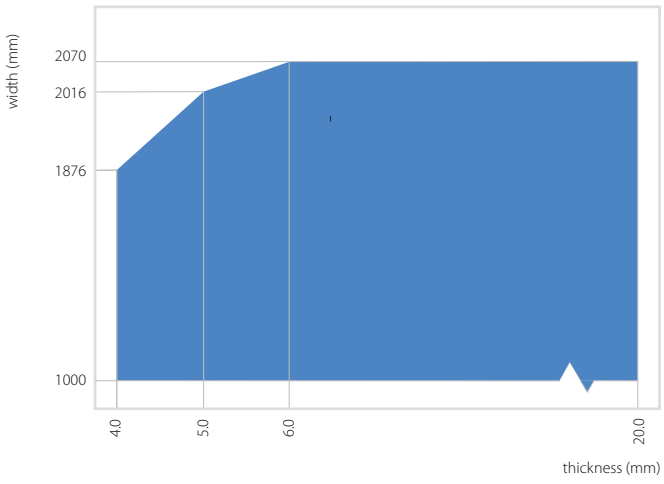
[1] The index of elongation (A%) refers to the type of tensile test sample

Chemical composition

	C		Mn		P	S	Si		Al		Cr		Ti		B	
	min.	max.	min.	max.	max.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.
27MnB5	0.245	0.275	1.150	1.250	0.020	0.010	0.200	0.250	0.020	0.060	0.200	0.300	0.020	0.035	0.0020	0.0035

All values are in weight%

Dimensional window of 27MnB5



■ 27MnB5 Hot-rolled dry

The unique widths and tailor made lengths provide unlimited nesting opportunities for your final product. Please contact Tata Steel or your local sales representative for alternative chemistries or dimensions which fall outside of the matrix.

CEV

The typical carbon equivalent value is 0.52.

Tolerances

Thickness tolerances are according to EN 10051. 90% of thickness tolerances of the strip length is guaranteed. ½ EN is possible on request. Test certificates 2.2/3.1 are available according to EN 10204.

Product support

We want you to get the best from our 27MnB5 grade. Our technical engineers and trained sales staff are always happy to answer any of your questions regarding our boron manganese family or any other steel types. Our engineers are available to assist you with process and product design optimisation for improved throughput, yield and end product performance.

Further information

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